

Claims

What is claimed is:

- 1    1.    A method for detachably docking a portable device to a docking device, the  
2        method comprising:  
3            placing the docking device on a stable surface, wherein the docking  
4        device includes a pair of moveable rear latches and moveable front latches;  
5            aligning the portable device with the docking device in a substantially  
6        vertical direction; and  
7            applying a substantially vertical force on the portable device to cause  
8        the docking, wherein the pair of moveable rear latches and the moveable  
9        front latches are operable to movably latch on to corresponding matching  
10       slots of the portable device when docked.
  
- 1    2.    The method of claim 1, wherein the aligning includes alignment of a pair of  
2        alignment pins included in the docking device with corresponding notches on  
3        the portable device.
  
- 1    3.    The method of claim 2, wherein the application of the vertical force causes  
2        the pair of alignment pins to mate with the corresponding notches.
  
- 1    4.    The method of claim 1, the docking device comprising:  
2        a substantially planar bottom section capable of being placed on the  
3        stable surface, wherein the pair of moveable rear latches and moveable front  
4        latches are affixed to the bottom section, wherein the pair of moveable rear  
5        latches and moveable front latches are aligned substantially perpendicular to  
6        the bottom section;

7           a substantially planar top section being operative to receive a bottom  
8           section of the portable device for docking, wherein the top section includes  
9           openings for the pair of moveable rear latches and moveable front latches to  
10          permit latching on to corresponding matching slots of the portable device  
11          when docked, wherein the docking causes the pair of alignment pins included  
12          in the top section to mate with the corresponding notches; and  
13          four side sections, wherein at least one of the side sections includes a  
14          release latch operable to undock the portable device.

1   5.    The method of claim 4, wherein the top section includes at least one  
2          electrical connector for electrically coupling the portable device to the docking  
3          device when docked.

1   6.    The method of claim 1, wherein applying the substantially vertical force  
2          causes the pair of moveable rear latches and moveable front latches to be  
3          slightly moved in an outwardly or inwardly direction.

1   7.    The method of claim 6, wherein the slight movement of the pair of the  
2          moveable rear latches and moveable front latches enables the corresponding  
3          matching slots to latch in response to the vertical force.

1   8.    The method of claim 6, wherein the slight movement is about 20 degrees.

1   9.    The method of claim 1, wherein each of the pair of moveable rear latches and  
2          the moveable front latches include a spring mechanism capable of providing  
3          a lateral force to latch the portable device in response to the vertical force,  
4          wherein the spring mechanism is in a loaded position while the portable  
5          device is being docked and in an unloaded position when the portable device  
6          is docked.

- 1    10.    A docking system operable to detachably dock a portable device, the system  
2           comprising:  
3                  a pair each of moveable rear latches and moveable front latches,  
4           wherein the pair of moveable rear latches and the moveable front latches are  
5           operable to latch on to corresponding matching slots of the portable device in  
6           response to an application of a substantially vertical force on the portable  
7           device for docking; and  
8                  a pair of alignment pins, wherein the pair of alignment pins are  
9           operable to mate with corresponding notches on the portable device when  
10          the portable device is docked.
- 1    11.    The system of claim 10, comprising:  
2                  a substantially planar bottom section, wherein the pair of moveable  
3           rear latches and moveable front latches are affixed to the bottom section,  
4           wherein the pair of moveable rear latches and moveable front latches are  
5           aligned substantially perpendicular to the bottom section;  
6                  a substantially planar top section being operative to receive a bottom  
7           section of the portable device for docking, wherein the top section includes  
8           openings for the pair of moveable rear latches and moveable front latches to  
9           permit latching on to corresponding matching slots of the portable device  
10          when docked, wherein the docking causes the pair of alignment pins included  
11          in the top section to mate with the corresponding notches; and  
12                 four side sections, wherein at least one of the side sections includes a  
13          release latch operable to undock the portable device.
- 1    12.    The system of claim 11, wherein the top section includes at least one  
2           electrical connector for electrically coupling the portable device to the docking  
3           device when docked.

- 1    13.    The system of claim 10, wherein applying the substantially vertical force on  
2           the portable device causes the pair of moveable rear latches and moveable  
3           front latches to be slightly moved in an outwardly or inwardly direction.
- 1    14.    The system of claim 13, wherein the slight movement of the pair of the  
2           moveable rear latches and moveable front latches enables the corresponding  
3           matching slots to latch in response to the vertical force.
- 1    15.    The system of claim 13, wherein the slight movement is about 20 degrees.
- 1    16.    The system of claim 10, wherein each of the pair of moveable rear latches  
2           and the moveable front latches include a spring mechanism capable of  
3           providing a lateral force to latch the portable device in response to the vertical  
4           force, wherein the spring mechanism is in a loaded position while the portable  
5           device is being docked and in an unloaded position when the portable device  
6           is docked.
- 1    17.    The system of claim 10, wherein the docking system substantially resembles  
2           a rectangular prism.
- 1    18.    An information handling system comprising:  
2           a portable device, wherein the portable device includes:  
3           a processor;  
4           a system bus;  
5           a memory coupled to the processor through the system bus;  
6           and  
7           a docking device having at least one peripheral device, wherein  
8           the docking device is operable to detachably dock the portable device,  
9           wherein the docking device includes:

10 a pair each of moveable rear latches and moveable front  
11 latches, wherein the pair of moveable rear latches and the  
12 moveable front latches are operable to latch on to  
13 corresponding matching slots of the portable device in response  
14 to an application of a substantially vertical force on the portable  
15 device for docking;

16 a pair of alignment pins, wherein the pair of alignment  
17 pins are operable to mate with corresponding notches on the  
18 portable device when the portable device is docked; and

19 a connector to electrically couple the processor and the  
20 at least one peripheral device when the portable device is  
21 docked.

1 19. The system of claim 18, wherein applying the vertical force causes the pair of  
2 moveable rear latches and moveable front latches to be slightly moved in an  
3 outwardly or inwardly direction.

1 20. The system of claim 18, wherein each of the pair of moveable rear latches  
2 and the moveable front latches include a spring mechanism capable of  
3 providing a lateral force to latch the portable device in response to the vertical  
4 force, wherein the spring mechanism is in a loaded position while the portable  
5 device is being docked and in an unloaded position when the portable device  
6 is docked.